FCC — WASHINGTON

92-266

1/29/93 Petitions in process

Estimate over 10,000 locally

Bonita Springs residents

Against Cable TV RATE INCREASES

WANT ACTION ON:

CABLE TELEVISION CONSUMER PROTECTION AND COMPETITION ACT

PASSED BY CONGRESS OCT. 1992.

[redacted]

WE NEED HELP NOW — ANOTHER

RATE JUST RECEIVED FOR FEB.

1993. Social Security retirees

ON LIMITED INCOMES CANNOT AFFORD, BUT NEED TV FOR INFORMATION. IT IS THEIR LIFELINE - HELP US NOW.

THANK YOU. A BOYCOTT OF ADVERTISERS IS FORTHCOMING.

John Lamar
26167 Colony Rd.
Bonita Springs, Fl.
33923

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Joan D. O'Connor
144 East Blue Heron Drive
Salem, South Carolina 29676

ORIGINAL
92-266

January 30, 1993

Federal Communications Commission Mass Media Bureau
Complaints and Investigations Branch
Washington, DC 20554

To Whom It May Concern,

In regard to Cencom Cable TV, providing service to me at the above address, I am concerned about the apparent excessive rates charged me since they purchased the Keowee Key Cable Co. in 1989.

Costs have increased 59% and the new basic extended plan effective 1/1/93 is an increase of 12½% over 1992 - three times higher than the rate of inflation.

Cencom has attempted to justify this by adding several channels without any input from us as to interest, desire or suitability.

The new basic rate of $15.95 plus tax appears excessive relative to basic rates of companies in nearby localities.

A response to this letter regarding my concerns would be appreciated.

Very truly yours,
Joan D. O'Connor
(Mrs. Joseph T.)

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FEB - 4 1993

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

DONELAN, CLEARY, WOOD & MASER, P. C.
ATTORNEYS AND COUNSELORS AT LAW
SUITE 850
1275 K STREET, N. W.
WASHINGTON, D. C. 20005-4078
TELEPHONE: (202) 371-9500
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February 4, 1993

[redacted]

Donna Searcy
Secretary
Federal Communication Commission
1919 M. Street, N.W.
Room 222
Washington, D.C. 20554

RE: Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992, Rate Regulations, MM Docket 92-266

Dear Ms. Searcy:

Enclosed please find, as a supplement to its comments in the above referenced proceeding, an original of the newsletter referenced in footnote three of the comments of the Fiber Optics Division, Telecommunication Industry Association, filed on January 27, 1993. Due to copyright restrictions, only the original is being filed.

If you have any questions or need additional information please advise.

Sincerely,

James R. Hobson
Jeffrey O. Moreno

Enclosures
7300/030

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CABLE TV TECHNOLOGY

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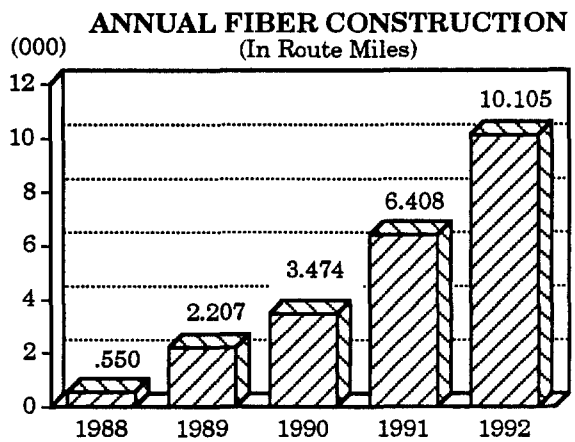
PAUL KAGAN ASSOCIATES, INC.
126 CLOCK TOWER PLACE
CARMEL, CALIFORNIA 93923-8734
(408) 624-1536 • FAX (408) 625-3225

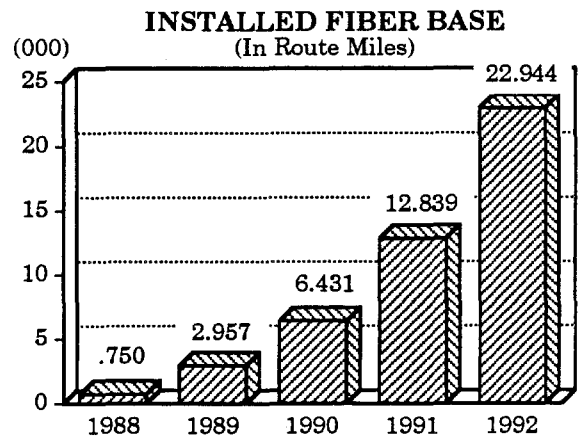
No. 177
March 25, 1992

Cable operator deployment of optical fiber rose 84% last year. That's not too shabby for an industry beset with regulatory uncertainty and buffeted by a recession and a banking crisis.

Based on our recent 1992 survey of top 50 MSOs, we expect annual fiber mileage to expand another 58% this year, bringing the industry's installed fiber base to 22,944 route miles.

Thanks to fiber-to-the-serving-area (FSA) and fiber-to-the-feeder (FTF) designs, the number of AM fiber nodes is growing even faster than fiber mileage. The cost of opto-electronics/node has declined sharply.





The bar graphs above track cable's love affair with fiber, which began in 1988, when AM optical systems began moving from the lab to the field.

The graphs' annual fiber construction mileage is based on data provided by top 50 MSOs in our annual surveys. The "installed fiber base" graph assumes the industry entered 1988 with 200 fiber route miles in place.

The graphs illustrate the dramatic growth in fiber deployment during the past five years. In 1988, the industry installed 550 miles of fiber. Activity quadrupled in 1989, then expanded another 57% to 3,474 in 1990.

By 1991, price and performance had reached a point where large-scale deployment of FSA and FTF designs had become cost effective. The result was last year's 84% rise in annual fiber mileage.

Current MSO budgets indicate the industry will install 10,105 route miles of fiber this year. That's almost three times the amount of fiber in-

(continued on next page)

CABLE TV TECHNOLOGY is published by Paul Kagan Associates, Inc., a media research firm. Other PKA publications are: Broadcast Banker/Broker, Broadcast Investor, Broadcast Investor Charts, Broadcast Stats, Cable TV Advertising, Cable TV Finance, Cable TV Franchising, Cable TV Investor, Cable TV Investor Charts, Cable TV Law Reporter, Cable TV Programming, Cellular Investor, Cellular Technology, Consumer Media Tech, The DBS Report, The Kagan Media Index, Media Bond Investor, Media Mergers & Acquisitions, Media Sports Business, Motion Picture Investor, Movie Stats, Newspaper Investor, The Pay TV Movie Log, The Pay TV Newsletter, The RSA Newsletter, SMATV News, TV Program Investor, TV Program Stats, Video Investor and Wireless Investor. For subscription information: Circulation Manager, Paul Kagan Associates, Inc., 126 Clock Tower Place, Carmel, CA 93923-8734.

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FIBER GROWTH DEFIES CONSTRUCTION SLOWDOWN (continued from P. 1)

stalled in 1990, 4.6 times 1989's fiber activity and more than 18 times the amount of fiber installed during 1988.

To extrapolate from our latest survey data, we've assumed that the top 50 MSOs accounted for 90% of fiber construction in 1991. We've increased that percentage to 92% for our 1992 data.

This increase in the top 50's percentage reflects a resurgence of industry consolidation in 1992 and the likelihood that large MSOs will enjoy relief from bank highly leveraged transaction (HLT) rules more quickly than smaller operators.

The rapid growth in fiber deployment last year came despite a sharp slowdown in overall construction activity (CTT #176, 2/29/92).

This is due to a number of factors, including fiber's operational benefits and last year's rapid reductions in AM opto-electronics costs.

For one thing, fiber's high reliability promises lower maintenance costs. And by reducing outage problems and improving signal quality, it also makes for happier subs and better public relations. Fiber also provides a vehicle for cost-effective line extensions in systems with long cascades.

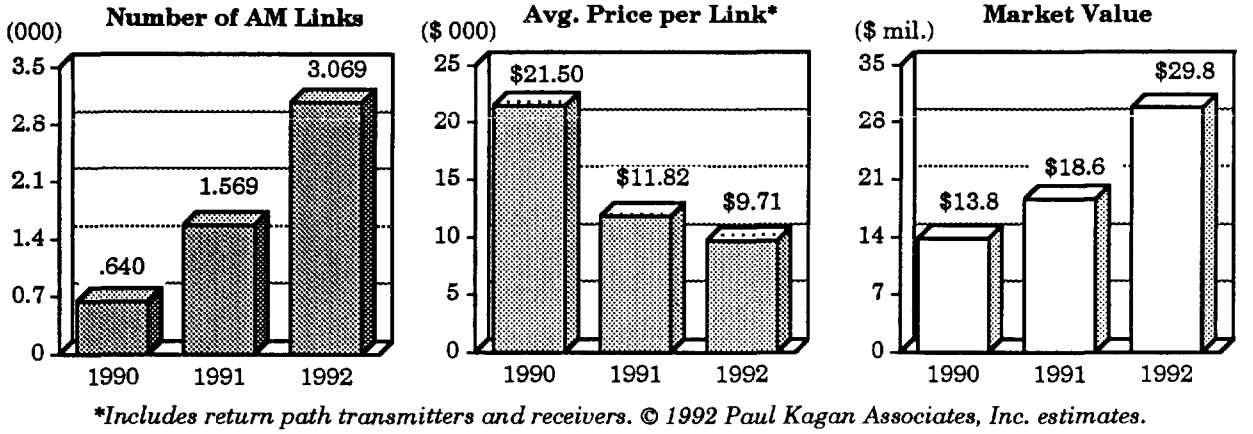
Eager to cut costs and to counter negative publicity, MSOs had plenty of incentive to make fiber a top priority in 1991 budgets.

This incentive grew even stronger as per-link costs for AM opto-electronics plummeted during 1991. As a result, many operators ended up spending even more on fiber than they had originally budgeted.

Several factors combined to slash per-link costs during 1991: higher production volumes; higher output power, which allowed for more splitting; and intense competition among vendors for leadership in an emerging market.

While this was clearly good news for MSOs, it was a mixed blessing for AM system vendors, whose revenue increases did not match the pace at which unit volumes rose (see bar graphs below).

THE AM OPTO-ELECTRONICS MARKET



**Includes return path transmitters and receivers. © 1992 Paul Kagan Associates, Inc. estimates.*

In 1990, when single links were selling for $25,000-$30,000 and low-power lasers allowed for very limited optical splitting, we estimated average per link costs at $21,500.

Conditions changed in 1991. Steady increases in laser output power

(continued on next page)

FALLING LINK COSTS SPUR AM FIBER GROWTH (continued from P. 2)

allowed for more optical splitting, which permitted sharing of transmitter costs among more receivers.

Competition heated up. First Scientific Atlanta, then Jerrold, challenged Optical Network International's early market dominance by aggressively pricing AM gear.

With per-link costs cut in half to $11,823 in 1991, the dollar value of the AM market increased only 34%, from $13.8 mil. to $18.6 mil., even as the number of new AM links grew by a whopping 145%, from 640 to 1,569.

Our per-link cost calculations assume the following average prices: single transmitters at $13,000 and single receivers at $2,500; dual transmitters at $23,000 and dual receivers at $4,250.

We also assume that single-laser links accounted for 80% of all 1991 links and that 10% of links were equipped with return-path lasers and receivers at an average price of $4,250 per return path. In terms of signal splitting, we assume an average of 1.75 receivers per transmitter in 1991.

Further price declines (though more moderate than last year's), coupled with increased splitting, are expected to reduce per-link costs even further this year.

We calculate a per-link cost of $9,706 for 1992, based on the following average prices: single transmitters at $11,250 and single receivers at $2,000; dual transmitters at $20,000 and dual receivers at $3,250.

We assume 2.1 receivers per transmitter and a drop in the share of single-transmitter links to 77% this year. The latter is due mainly to a shift in market share in favor of a vendor with a richer mix of dual-laser links. For some vendors, however, the share of dual-laser links appears to be falling.

Our per-link cost calculation also assumes an increase in the percentage of links equipped with a return path. For 1992, we expect 30% of all links to fall into that category, at an average of $3,750/return link--most designed to carry data only. A smaller share of return paths will be video-capable.

The result is a 1992 AM opto-electronic market of $29.8 mil., up 60% from 1991's $18.6 mil. As it did in '91, the percentage rise in dollars will fall short of the 95% surge we project for AM link unit volumes in '92.

Early last year, top 50 MSOs reported plans to install 61 FM or digital links. This year's survey indicates they actually installed 97 links and plan to add

(continued on P. 6)

TOP 50 MSO FIBER CONSTRUCTION (1991-1992)

Rank	MSO	Systems Installing Fiber		Fiber Route Miles*		Fiber Miles*		AM Fiber Links		FM or Digital Fiber Links		Installed Fiber Base (e) (Route Miles*)	
		1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	12/91	12/92
1	TCI (1,e)	60	72	1,500	1,800	21,750	27,900	375	450	2	2	2,152	3,952
2	ATC (2)	28	19	627	638	9,805	12,713	178	282	26	14	1,604	2,242
3	Continental	26	34	647	660	10,871	9,833	181	202	15	11	1,274	1,934
4	Warner Cable	1	4	12	80	96	895	2	18	0	0	159	239
5	Comcast (3)	8	8	209	409	1,672	3,272	30	51	0	0	433	842
6	Cox Cable	15	18	326	824	7,159	18,272	126	423	25	1	551	1,375
7	Cablevision Systems	6	10	165	371	4,107	6,904	29	60	1	1	623	994
8	Storer (4)												
9	Jones Spacelink	11	11	123	187	2,239	2,694	29	56	0	0	737	924
10	Newhouse												
	Vision Cable (e)	2	2	50	20	700	280	10	5	0	1	57	77
	Metrovision (e)	5	5	100	100	1,400	1,400	9	16	0	0	207	307
	NewChannels	6	7	175	397	2,500	9,400	15	265	5	2	467	864
11	Cablevision Industries	10	8	290	270	2,100	1,800	60	55	0	0	353	623
12	Times Mirror	11	14	150	407	2,700	7,326	45	50	1	3	220	627
13	Adelphia Comm.	13	13	232	226	4,640	4,520	66	95	0	0	440	666
14	Viacom Cable	2	6	15	69	360	2,852	1	36	12	27	22	91
15	Sammons (e)	2	3	20	90	280	1,440	4	22	0	0	53	143
16	Falcon Cable	8	6	150	260	1,200	2,040	45	95	0	0	203	463
17	Century	1	3	10	24	160	360	1	4	0	0	99	123
18	Telecable	4	10	132	226	6,866	8,136	8	130	0	0	137	363
19	Scripps Howard	6	4	100	200	1,600	3,200	10	90	4	6	116	316
20	Cencom Cable	3	4	145	95	1,783	1,355	63	10	0	1	254	349
21	KBLCOM	2	3	52	200	1,248	4,800	2	15	0	10	111	311
22	Lenfest	6	8	45	75	1,080	1,800	5	8	1	0	65	140
23	Prime Cable	0	0	0	0	0	0	0	0	0	0	9	9
24	Tele-Media (e)	0	2	0	20	0	240	0	4	0	0	133	153
25	Multivision (e)	0	2	0	20	0	240	0	4	0	0	0	20
26	Post-Newsweek	2	1	20	16	120	96	2	1	0	0	39	55
27	TCA	0	2	0	30	0	240	0	10	0	0	0	30
28	Maclean Hunter	2	3	8	93	94	3,240	3	66	0	2	135	228
29	Multimedia	0	4	0	150	0	1,480	0	28	0	0	10	160

(continued on next page)

TOP 50 MSO FIBER CONSTRUCTION, 1991-1992 (continued from P. 4)

Rank	MSO	Systems Installing Fiber 1991	Systems Installing Fiber 1992	Fiber Route Miles* 1991	Fiber Route Miles* 1992	Fiber Miles* 1991	Fiber Miles* 1992	AM Fiber Links 1991	AM Fiber Links 1992	FM or Digital Fiber Links 1991	FM or Digital Fiber Links 1992	Installed Fiber Base (e) (Route Miles*) 12/91	Installed Fiber Base (e) (Route Miles*) 12/92
30	Colony (5)	2	5	30	159	1,087	5,073	7	39	0	2	54	213
31	Simmons (e)	2	2	25	30	350	450	5	6	0	0	36	66
32	Rifkin & Assoc.	1	2	50	65	250	325	4	14	0	0	130	195
33	Hauser	1	1	14	10	120	180	2	1	2	0	47	57
34	TKR (3)	0	4	0	70	0	865	0	9	0	1	31	101
35	InterMedia Ptnrs.	3	10	72	180	400	900	8	21	0	0	75	255
36	Western	0	0	0	0	0	0	0	0	0	0	0	0
37	Triax	0	2	0	14	0	185	0	1	0	0	9	23
38	Greater Media	1	4	10	20	140	310	2	25	0	1	42	62
39	Service Electric	1	4	22	104	484	2,704	2	9	0	0	23	127
40	Columbia Intl.	3	4	92	157	2,316	2,950	26	29	0	0	144	301
41	King Videocable	2	2	30	65	375	288	6	24	0	0	42	107
42	Harron	1	5	20	97	160	776	2	17	1	3	21	118
43	Media General	0	1	0	9	0	108	0	4	0	0	0	9
44	C-TEC	2	19	27	218	218	2,217	2	18	0	2	84	302
45	Wometco	2	1	12	14	154	164	2	1	0	0	71	85
46	US Cable (e)	0	0	0	0	0	0	0	0	0	0	0	0
47	Palmer (6)												
48	Garden State	0	1	0	53	0	1,131	0	27	0	0	0	53
49	Sutton Capital	2	1	20	10	364	100	43	5	0	0	31	41
50	Star Cablevision	2	3	40	65	720	660	2	17	0	0	52	117
	Top 50 total	265	357	5,767	9,297	93,668	158,114	1,412	2,818	97	92	11,554	20,851
	% Chg. 1991-1992		34.7%		61.2%		68.8%		99.6%		-5.2%		80.5%
	Industry total (7)	294	388	6,408	10,105	104,076	171,863	1,569	3,063	108	100	12,839	22,944
	% Chg. 1991-1992		31.8%		57.7%		65.1%		95.2%		-7.4%		85.5%

*Footnotes: (e) PKA estimate. * A 10-mile fiber link with 12 fibers per cable would account for 120 fiber miles and 10 route miles. (1) Includes Heritage, United Artists systems and TCI-managed Storer properties. (2) Includes Brooklyn Queens Time Warner system and all Paragon divisions except Los Angeles. (3) Includes company-managed Storer properties. (4) Included in TCI, Comcast and TKR totals. (5) Includes Palmer Comm. and Community Cablevision properties. (6) Included in Colony total. (7) Top 50 fiber construction is assumed to account for 90% of industrywide fiber construction in 1991 and 92% in 1992.*

SUPERTRUNKS SHIFTING TO DIGITAL (continued from P. 3)

another 92 in 1992. Extrapolating to the entire industry, this translates into 108 FM or digital links in 1991 and 100 this year.

It appears that the mix of FM and digital links will take a decided turn in favor of digital this year. Last year, 72%, or 78 of such links, fell into the FM camp. This year, only half (50 links) are likely to be FM.

To value this "supertrunk" segment of the opto-electronics market, we set average price/channel at $3,200 in 1991 and $3,000 in 1992 and assumed the average link includes 38 channels in 1991 and 42 channels this year.

Under these assumptions, the combined FM and digital market comes to $13.1 mil. in 1991 and $12.6 mil. in 1992, a decline this year of 7%.

Though far below AM opto-electronics in terms of link volumes, the FM/digital sector accounted for 41% of a $31.7 mil. opto-electronics market in 1992. Of this year's $42.4 mil. market, FM and digital claim a 30% share.

The four largest users of FM and digital links during 1991-1992 are ATC, Continental, Cox and Viacom. Together they account for 56% (61) and 53% (53) of FM and digital links installed in 1991 and 1992 respectively.

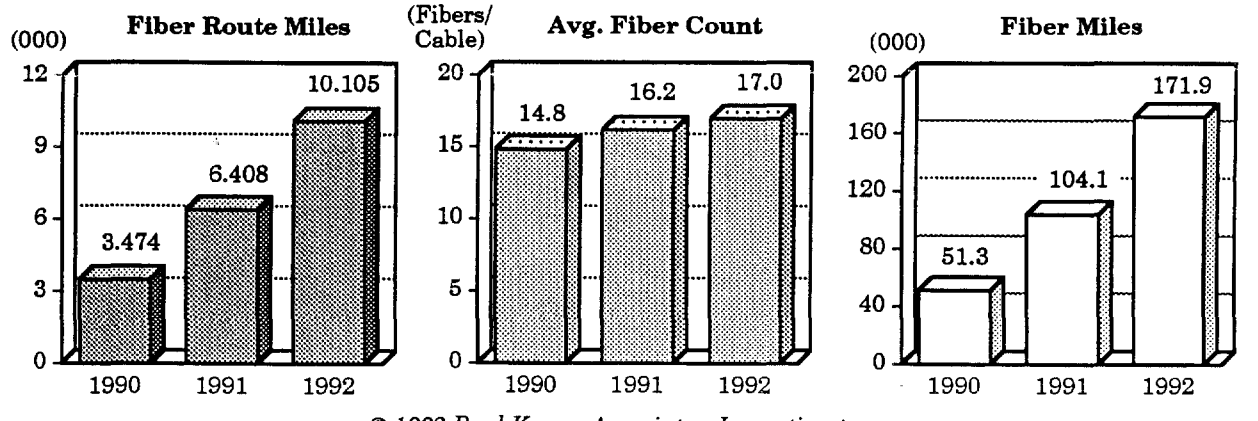
On the AM side, the leaders are TCI, ATC, Continental and Cox. Together they claim 860 AM links, or 55% of the industry's 1991 total. This year, their 1,357 links account for 44% of total links (see table P. 4-5).

Our survey finds two other MSOs planning to install at least 100 AM links this year: NewChannels (265) and Telecable (130).

Falcon Cable (95 links), Scripps Howard (90) and Adelphia (80) are also closing in on the 100-per-year mark.

Last year, fiber was installed in 294 systems. This year, it will be added to another 388 systems. On average, 5.3 AM links were installed per system in 1991. This year, there will be 7.9 AM links. Fiber mileage per system should average 26 route miles this year, up from 21.8 miles in 1991.

The average number of AM links and fiber miles per project is, of course, higher than these annual figures, since larger projects typically take more than a year to complete.



The graphs above show how the average fiber count has risen steadily over the past few years and how, as a result, annual fiber mileage has increased somewhat faster than the number of route miles lashed with fiber.

(continued on next page)

INDUSTRY MOVES TOWARD FIBER-RICH PLANT (continued from P. 6)

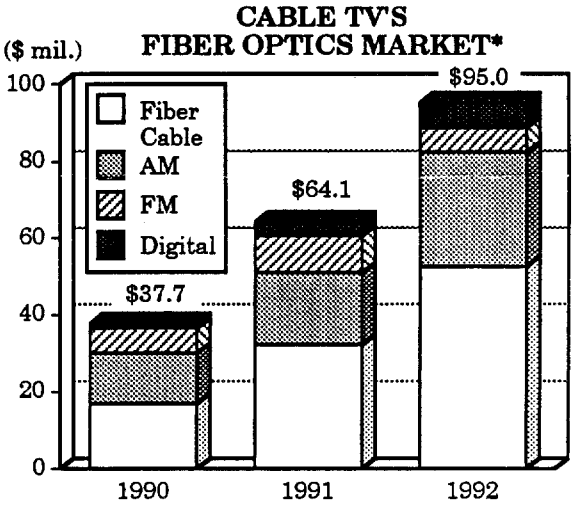
As in the case of AM opto-electronics, competition has put downward pressure on fiber cable prices during the past year, though the latter have fallen far less dramatically than per-link costs.

We assume the following prices per fiber foot: $.0625 in 1990, $.059 in 1991 and $.058 in 1992.

Even in the face of steady price erosion, the fiber cable market's value jumped 92%, from $16.9 mil. in 1990 to $32.4 mil. last year. We expect this year's fiber shipments to increase another 62% to $52.6 mil.

As the graph (>>>) illustrates, fiber cable accounts for the largest share of the industry's optical investment. That share stood at 45% in 1990. This year, more than half (55%) of optical dollars go toward fiber.

FM opto-electronics, in contrast, dropped from a 17% share in 1990 to less than 7% in 1992. Due mainly to the sharp drop in per-link costs, AM's share of optical spending has also fallen, from 35% in 1990 to 31% this year. Digital systems, barely a one-million-dollar business in 1990, are expected to increase their share of MSOs' optical outlays from that year's 3% to 7% in 1992.



AM, FM and digital refer to opto-electronics costs.
© 1992 Paul Kagan Associates, Inc. estimates.

MSOs will spend $95 mil. on fiber optics this year, an increase of 48% over the $64 mil. they spent in 1991. The percentage rise in 1991 was 70%, from a base of $37.7 mil. in 1990.

TCI AND MCCAW LAUNCH PCS TRIAL

This month, Tele-Communications, Inc. (TCI) and McCaw Cellular Comm. announced the start of a market trial to provide residential microcellular service in Ashland, OR.

During the six-month trial, 200 Ashland residents will be provided with pocket-sized cellular phones modified for the test.

Low-power microcells tied to McCaw's existing cellular network via TCI's fiber optic cable will provide service to homes and office buildings throughout the community.

Trial participants will be able to use their pocket phones at home and to make and receive calls as they travel around town.

They will also have the option to use the phones to receive conventional cellular service in areas outside Ashland.

The trial includes two service options. The City Plan offers monthly access that includes equipment and 60 minutes of Ashland air time for $19.95 per month plus 20 cents per minute.

Those opting for the Residential Plan will pay a monthly service charge of $16.95 that covers equipment and free inbound calls. Their per-minute charge for outbound calls will be 50 cents.

As previously reported (CTT #176, 2/29/92), 24 cable MSOs and General Instrument have filed with the FCC for PCS tests in 75 cities.

MSOs MOVING ON ALTERNATE ACCESS

Now that TCI and Cox Enterprises have teamed up to acquire Merrill Lynch's interest in Teleport Communications, policymakers realize that cable operators are serious about the telecommunications market.

Total U.S. wireline telco revenue is a $125 bil. market. By the year 2000, it may be a $165 bil./yr. market.

By comparison, cable TV generated $20 bil. in revenue last year and could be a $40 bil. business by the year 2000.

At the urging of cable's competitors, Washington policymakers are trying to curtail cable price increases, force payments for carriage of local TV and mandate that cable programmers sell to technological competitors.

These factors, plus the flexibility provided by fiber optics, make it no surprise that cable operators are focusing on telecommunications.

U.S. ACCESS INTERCONNECT REV.	
Switched Access	$22 bil.
Special Access	6
Total	$28 bil.

U.S. access interconnect revenue is a $28 bil. market, of which the share of Competitive Access Providers (CAPs) is only $250 mil. By the year 2000, however, total interconnect revenue is expected to increase between 25% and 100%.

For years, cable operators in some cities, like New York City, have provided data services and interconnection for large banks.

Within the past four years, Cox Enterprises bought into Teleport, Comcast entered the cellular business, Century Comm. bought Citizen's Utilities and Providence Journal has been in and out of cellular.

TCI's Digital Direct, Jones Lightwave and units of ATC, Adelphia and Cox Cable are all CAP investors. Other cable players include Phoenix Fiberlink, sister company to Phoenix Cable and Phoenix Leasing. Armed with a $3 mil. loan, it is building an alternate access network in Sacramento, CA.

TCI's acquisition of Teleport may be just the beginning of a buying binge. It recently purchased Penn Access and there's a rumor it is negotiating to buy some of Metropolitan Fiber Systems' markets.

It's also no coincidence that TCI's John Malone is on McCaw's board of directors. The two companies are involved in a six-month, 200-home, residential microcellular test in Ashland, OR (see story P. 7).

As alternate access grows, Teleport figures to be a large customer for equipment suppliers, so it should have some leverage in acquiring fiber, switches and other hardware.

Malone views Teleport as a national umbrella vehicle to make deals with local operating companies. These local operating companies, in turn, might be a consortium of Teleport, cable operators and other fiber owners.

Almost 50% of an interexchange carrier's (IXC) costs come from connection to the local loop. Eliminate that revenue from the local telco and it's a new ballgame for CAPs.

The leading national CAPs are Teleport, Metropolitan Fiber Systems and Digital Direct. Companies like Bay Area Teleport and Intermedia Comm. operate regionally, and there are numerous single-city companies. Many CAPs belong to the Association for Local Telecommunications Services (ALTS).

Since 1987, the number of cities with CAPs has risen from five to more than 40. According to the FCC, the number of CAP route miles increased

(continued on next page)

COMPETITIVE ACCESS: A HIGH-GROWTH MARKET (continued from P. 8)

from 133 in 1987 to 1,156 in 1990 (see table below).

The investment in CAP networks increased from an estimated $25 mil. in 1988 to $250 mil. in 1991.

CAP NETWORK GROWTH (1987-1991)

Year	*Cities with CAPS*	*Route Miles*	*CAP Network Investment (mil.)*
1987	5	133	n/a
1988	9	188	$ 25
1989	13	724	50
1990	25	1,156	100
1991	40	2,000+	250

Source: Yankee Group, FCC, ALTS.

The FCC is in the process of an interconnection rulemaking (Docket 91-141) that could create important new opportunities for CAPs by widening the scope of services for dedicated line (special access) and switched access and by providing flexibility to serve a wide array of new markets.

The Commission has proposed expanded interconnection for all third parties, regardless of their classification as interexchange carrier, end user, CAP or something else.

Potential opportunities include connections from: (1) local exchange carrier (LEC) central office (CO) to IXC points of presence (POPs); (2) LEC tandem switches to IXC POPs; and (3) LEC COs to other LEC COs.

LECs argue that expanded interconnection opportunities require regulators to permit greater LEC pricing flexibility.

Perhaps the most important issue is physical collocation versus virtual collocation at telco central offices. Telco competitors claim LEC pricing of collocation services should be unbundled and cost-based.

Take Williams Telecommunications, for example. Wiltel has invested billions to create a fiber network connecting more than 50 cities to provide voice, data and video services.

The Tulsa-based firm claims LECs should have the burden of proving space constraints prevent physical collocation. In those rare cases, the FCC should require a LEC to provide "de facto" collocation at the same interconnection charge that would apply for physical connection, said WilTel.

WilTel itself has routinely allowed physical collocation of other carriers at its own premises, proving that physical collocation is possible, said WilTel's filing to the FCC, submitted by Hogan & Hartson.

WilTel said it provides collocation at 90% of its POPs and has price and collocation policies to meet its customers' access requirements.

Guidelines specify the minimum and maximum amount of space a collocated customer can use. Schedules for build-out of space and installation of necessary power and generator equipment are standardized, said Wiltel.

Customers have the option of purchasing maintenance but aren't required to do so, and interconnectors have a key to the WilTel premises and to the specific cage where their equipment is located, said WilTel.

(continued on next page)

COMPETING WITH LECS (continued from P. 9)

WilTel pointed to frustrating access bottlenecks faced by its customers. It said Merrill Lynch has begun dealing with WilTel's subsidiary, Vyvx-NVN, for video conference training at a price 50% below LEC pricing.

NVN's video service requires the video signal to be encoded and/or decoded at WilTel's POP, then sent or received from the customer premises over LEC facilities.

Unfortunately, Merrill Lynch has found that the price of local access between its training facilities and WilTel POPs is too expensive to justify use of the service on a continuing basis.

Gardiner Gillespie of Hogan & Hartson believes the FCC will treat CAPs as nondominant carriers. He charted a five-year breakdown of state and federal barriers to CAP service:

	Federal	*State*
1992	Expanded interstate special access interconnection.	Expanded intrastate special access interconnection.
1993-94	Expanded intrastate switched access interconnection.	More interLATA and intraLATA intrastate switched access.

Other regulatory issues have to be resolved. Is the telco/cable cross-ownership ban an obstacle? Will telcos be able to capitalize on cable's entry into telecommunications when lobbying for telco entry into video?

Then there's pole attachments and franchising. Will cities and states demand to issue franchises, regulate rates and seek franchise fees?

Does the FCC have authority under the Pole Attachment Act to regulate a cable operator's usage of poles purely for telecommunications wiring? If so, there may be an Equal Protection constitutional problem, because the FCC doesn't regulate pole rates charged to other CAPs.

Cable participation in CAP market

Although cable participation may ultimately depend upon regulation, there appear to be a number of ways cable can compete in the CAP market, ranging from providing dark fiber and transport to full service:

- Dark fiber or circuit lease to end user or IXC;
- Right-of-way lease to "independent" CAP;
- Lease or sell dark fiber to "independent" CAP;
- Build and lease (or sell) new dark fiber to "independent" CAP;
- CAP subsidiary;
- Cable consortium;
- CAP partnership.

If they compete directly in the access market, cable operators will have to convince potential customers that they will provide the high level of service required by large users of telecommunication services.

In some cases, cable CAPs have had to overcome a widespread perception that cable TV networks suffer outages that are too long in duration and too frequent. The result has been wariness in potential access customers.

Companies that rely on telecommunications have a high sensitivity to outages and require superior repair service and redundant routing. Research suggests these factors can be more important than price.